Evaluation Statement

Position Description
for
Engineer, GS-801-12
(Office of the Chief, MEO)

Labor Category/FLSA: E

_____Current or __X___Proposed Specific Description

Date Prepared: 07/01/2003

Approving Official: Marcia Gosha-Caldwell **Signature:** Marcia Gosha-Caldwell
Title: HR Specialist

Standards Used: General Schedule Supervisory Guide, dated 4/98, PCS for Engineering Group, GS-0800, dated 3/90 and Industrial Engineering Series, GS-0896, dated 1/75

Position Title/Series/Grade: Engineer, GS-0801-12

The proposed title, series, and grade for the position is General Engineer, GS-0801-12. The position has been evaluated using the position classification standard (PCS) for Industrial Engineers, GS-0896 and Engineering Group, GS-0800.

The PCS for the Engineering Group, GS-0800, covers all classes of positions the duties of which are to advise on, administer, supervise, or perform professional, scientific, or technical work in engineering research, in the investigation or development of engineering projects, or in the development, design, construction, inspection, production, application, standardization, test, operation or maintenance of engineering facilities. The series definition adequately describes the position under evaluation, since the duties and responsibilities involve performing a variety of office and field engineering duties associated with design, layout, construction, operation and maintenance of large research and office buildings, ensuring that the building's mechanical, structure and electrical systems are planned, installed and maintained in accordance with accreditation codes.

The Industrial Engineering PCS was used to evaluate the nature and variety of work, nature of available guidelines used to perform the work, nature of supervisory control exercised over the work, mental demands, purpose and nature of person-to-person work relationships, nature and scope of recommendations, decisions, commitments and conclusions made to ensure that the level of work, professional knowledge, abilities and qualifications are consistent with the requirements of the standard.

The titling practices are not specifically addressed in the standard; however, the basic principles for titling positions are implied, based on information derived from the U.S. OPM Introduction to the Position Classification Standards. The standard states that, the series assigned to a position is

represented by the primary work of the position, highest level of work performed, and the paramount qualifications required. In this case, the primary work and paramount qualification requirements of this position is best described as that of an Engineer. The incumbent's has responsibility for performing a variety of office and field engineering duties associated with design, layout, construction, operation and maintenance of large research and office buildings, ensuring that the building's mechanical, structure and electrical systems are planned, installed and maintained in accordance with accreditation codes.

The title of Engineer requires practical application of basic scientific principles, fundamental engineering concepts and terminology, the units of measurement, and their interrelationship throughout all branches of engineering and a thorough understanding of engineering techniques and methods that are gained from four (4) years of engineering training from an accredited college or university. These requirements are critical to the successful performance of the position under evaluation, thus the title of Engineer is appropriate, since the incumbent is must have a mastery of advanced concepts, principles, and practices of engineering to serve as a technical authority in the fields of accreditation, mechanical systems, structural systems and electrical equipment and systems as related to accreditation of hospital and animal care facilities. In addition, the incumbent of this position will provide technical advice and guidance to lower grade engineers and operating personnel on possible approaches to the solution of specific engineering problems related to equipment and systems specified as critical to accreditation issues.

As mentioned previously, the position is being evaluated based on the PCS for Industrial Engineering Series, GS-0896. The criterion used in the evaluation are: 1) nature and variety of work; 2) nature of available guidelines for performance of work; 3) nature of supervisory control exercised over the work; 4) mental demands; 5) purpose and nature of person-to-person work relationships; and 6) nature and scope of recommendations, decisions, commitments and conclusions.

I. Nature and variety of work. The position is comparable to the description of the GS-12 or this factor. At this level, the standard describes the following: the incumbent may serve as project engineer for complex projects, many of a unique nature; guidelines and/or precedents are often not available; at this level, skill in improvisations, deviations and difficult engineering determinations are typical at this level. The incumbent investigates a variety of operating problems such as chilled water flow problems in the underground distribution system, HVAC problems in the laboratories, operating problems with the NIHAC waste treatment plan and initiates the course of action to resolve problems. In addition, consults with construction engineers and contractor personnel to resolve difficult problems that develop during construction where there is no precedence or guidelines to refer to. The assignment of the GS-12 is appropriate for this factor.

II. Nature of available guidelines for performance of the work: The guidelines used by lower graded engineers are also used by GS-12 level Engineers for more routine phases of the work, but a major portion of their work requires the use of ingenuity, initiative and judgement. Engineers serving in an advisory position, serves as authoritative source of information in terms of location, availability, and adequacy of technical guides, precedents, methods, and techniques in their specialty. Typically, at this level, the

Engineers use originality in selecting, modifying, and adapting these guidelines to the solution of specific problems. The subject position is recognized as an authority, requiring the exercise of considerable judgement and ingenuity in interpreting or adapting guidelines that exist and in many cases develops new approaches. The assignment of GS-12 is appropriate.

III. Nature of supervisory control exercised over the work: The assignment of GS-12 is appropriate for this factor. At this level, the supervisor makes assignments in terms of broadly stated objectives and relative priority for completing the work. Completed work is reviewed for adequacy of results, for general consistency with other projects and conformance with administrative policies and regulations. Also, at this level, Engineers are regarded as authoritative sources of information. This criterion adequately describes the position under evaluation at the GS-12 level, since the incumbent is regarded as an authoritative source of information to contractors and lower graded staff members and the supervisor is available and kept informed of progress of assignments that are potentially controversial. The actions, decisions and commitments of the incumbent is regarded as authoritative and are accepted without change.

IV. Mental Demands: At the GS-12 level, the incumbent exercises a high degree of technical judgment, originality and resourcefulness to develop and execute specific plans of action for extensive and complex project assignments with only broadly states objectives outlined by the supervisor. The assignment of GS-12 is appropriate for this position, since the incumbent is expected to plan for and carry out projects with authority to act on his/her own initiative. The assignment of GS-12 is appropriate.

V. Purpose and nature of person-to-person work relationships: GS-12 is appropriate for this criterion, since the incumbent's contacts are for consultations, exchange of engineering data, information and opinions with respect to planning, establishment, coordination, and execution of the project.

VI. Nature and scope of recommendations, decisions, commitments, and conclusions: The position meets the GS-12 level for this factor. The standards describes this factor is being very significant in light of the level of planning and coordinating responsibilities required in positions at this level. At this level, positions are continually having to improvise, deviate and compromise engineering practices. They provide advice on complex problems with policy implications at the GS-12 level. This position is comparable to this level description since the incumbent will provide direction and technical advice to all major multi-million dollar design projects. When there are deviations from policies, master plans, schedules, budget estimations and operational characteristics of the project, the incumbent is expected to make recommendations for courses of actions as well as alternative courses of action. The assignment of GS-12 is appropriate.

Conclusion: Engineer, GS-801-12

Installation: National Institutes of Health, Bethesda, MD
Title: General Engineer
Occ Series: 801
Pay Plan: GS
Grade: 12

Introductory Statement: The Division of Property Management (DPM) serves all of the NIH Community by providing support for renovations, new construction and maintenance of existing facilities, utilities and grounds. The Division provides professional leadership for the engineering programs of the National Institutes of Health (NIH). The scope of DPM operations is such that the effectiveness with which they are carried out has a major and direct effect on the worldwide biomedical research programs of the NIH. In addition to the main facilities at the Bethesda Campus and in Poolesville, MD, NIH has facilities at Research Triangle Park, North Carolina, Rocky Mountain Laboratory in Montana and the Gerontology Research Center in Baltimore, MD.

This position is organizationally located within the DPM and is responsible for the direction, organization and implementation of all activities related to engineering support of the accreditation of NIH facilities with JCAHO and AAALAC criteria.

Duties

Major Duties and Responsibilities

Incumbent serves as a staff engineer in the Office of the Chief, MEO. Responsible for performing a variety of office and field engineering duties associated with design, layout, construction, operation and maintenance of large research and office buildings, ensuring that the building's mechanical, structure and electrical systems are planned, installed and maintained in accordance with governing accreditation codes.

Performs survey and investigations at the project site to determine condition of facilities and to secure necessary data prior to initiating design, evaluates the data obtained and incorporates the salient factors into design consideration and solutions.

Reviews mechanical, structural and electrical features of plans and specifications and maintenance and operations plans for equipment and systems specified as critical to accreditation issues.

Surveys existing site conditions to determine engineering, design and operational system needs related to equipment and systems specified as critical to accreditation issues.

Prepares technical reports, papers and other information required to support accreditation of NIH facilities.

Reviews and evaluates shop drawings, samples and material certifications submitted by contractors and in-house staff for compliance with performance and accreditation requirements, recommending approval, rejection or modification.

Consults with construction engineers and contractor personnel to resolve difficult problems that develop during construction.

Furnishes technical advice to lower grade engineers and operating personnel on possible approaches to the solution of specific engineering problems related to equipment and systems specified as critical to accreditation issues.

Develops policies and procedures for the operation and maintenance of the complex mechanical and utility systems found in the buildings at NIH to insure a safe and reliable supply of services and compliance with accreditation requirements.

Acts as or assists the project office in administration of service and maintenance contracts applying management techniques, knowledge of mechanical engineering, etc.

Investigates a variety of operating problems such as chilled water flow problems in the underground distribution system, HVAC problems in the laboratories, operating problems with the NIHAC waste treatment plant, etc. and initiates action to correct or advises management on a recommended course of action to correct the problem.

Represents MEO, DPM and ORF Management in any committees or meetings required for accreditation as related to facilities and operations.

Performs other duties as assigned.

Knowledge Required

Mastery of advanced concepts, principles, and practices of engineering to serve as a technical authority in the fields of accreditation, mechanical systems, structural systems and electrical equipment and systems as related to accreditation of hospital and animal care facilities.

The ability to evaluate and incorporate the latest developments in the engineering fields into the technical guidelines and policies used in the operation and maintenance of NIH facilities to meet accreditation requirements and codes.

Supervision and Guidance Received

The incumbent has wide latitude for independent judgment, interpretation, and decision-making under the general supervision of the MEO Manager and the Director, DPM, who provides broad objectives and goals to be met while performing the duties and responsibilities of this position.

Advice, decisions, and recommendations are considered technically authoritative and are reviewed only with respect to their impact on DPM and MEO policy programs.

Guidance is available through standard engineering practices and principles obtained through professional engineering training, technical manuals, textbooks/handbooks, NIH and accreditation standards/codes/regulations/policy, etc. These guidelines are rarely adequate for solving complex and unusual operations and maintenance problems with which the employee is faced. These problems require the exercise of considerable judgment and ingenuity in their resolution.

Other Significant Facts

The position requires a background in the design, construction, operation, and maintenance of complex buildings and utility systems and knowledge of industrial engineering principles and practices.

Physical Effort:

Work usually does not require or impose unusual physical demands. Building inspections may occasionally require walking, standing, stooping, bending, kneeling, and climbing. Occasionally lifts and carries parts and equipment weighing up to 40 pounds.

Working Conditions:

Position may be subject to shift or irregular work hours.

Most work is performed in a standard office setting. On-site management or monitoring of repair activities and renovation projects may involve exposure to risks, hazards and discomforts typically present on construction sites. In such situations the incumbent is required to wear protective clothing or equipment and exercise appropriate caution.